PATENT
Client/Matter No. 64771.00001

Amendments to the Claims:

This Listing of Claims replaces all prior versions, and listings, of claims in this application.

1. (Previously Presented) A method of treating a disease, condition or disorder, comprising:

administering a tetracycline or tetracycline-like compound, whereby the disease, condition or disorder is treated or prevented, and wherein the disease, condition or disorder is selected from the group consisting of multiple sclerosis, rheumatoid arthritis, acute cardiovascular events, cachexia, inflammatory bowel disease, polytrauma and Crohn's disease.

2. (Original) The method of claim 1, wherein the tetracycline compound is selected from the group consisting of chlortetracycline, demeclocycline, doxycycline, methacycline, minocycline, oxytetracycline and tetracycline.

3. (Original) The method of claim 1, wherein the disease, condition or disorder is multiple sclerosis.

4. (Original) The method of claim 1, wherein the disease, condition or disorder is a flare-up or acute phase of multiple sclerosis.

5. (Original) The method of claim 3, wherein the tetracycline compound is selected from the group consisting of chlortetracycline, demeclocycline, doxycycline, methacycline, minocycline, oxytetracycline and tetracycline.

6. (Previously Presented) The method of claim 1, wherein the tetracycline compound is selected from the group consisting of 4-dedimethylaminotetracycline, 4-dedimethylamino-5-oxytetracycline, 4-dedimethylamino-7-chlortetracycline, 4-hydroxy-4-dedimethylaminotetracycline, 5a,6-anhydro-4-hydroxy-4-dedimethylaminotetracycline, 6á-deoxy-5-hydroxy-4-dedimethylaminotetracycline, 6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 4-dedimethylamino-12a-deoxytetracycline, 4-dedimethylamino-11-hydroxy-12a-deoxytetracycline, 12a-deoxy-4-deoxy-4-dedimethylaminotetracycline, 6á-deoxy-5-hydroxy-4-dedimethylaminodoxycycline, 12a,4a-anhydro-4-dedimethylaminotetracycline, 7-dimethylamino-6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 6a-benzyl-thiomethylenetetracycline, 2-nitrilo analogs of tetracycline (tetracyclinonitrile), mono-N-

alkylated amide of tetracycline, 6-fluoro-6-demethyltetracycline, 11a-chlortetracycline, tetracycline pyrazole, 12a-deoxytetracycline, 4-de(dimethylamino)tetracycline (CMT-1), tetracyclinonitrile (CMT-2) 6-demethyl-6-deoxy-4-de(dimethylamino)tetracycline (CMT-3), 7-chloro-4-de(dimethylamino)tetracycline (CMT-4), tetracycline pyrazole (CMT-5), 4-hydroxy-4-de(dimethylamino)tetracycline (CMT-6), 4-de(dimethylamino)-12á-deoxytetracycline (CMT-7), 6-deoxy-5á-hydroxy-4-de(dimethylamino)tetracycline (CMT-8), 4-de(dimethylamino)-12á-deoxyanhydrotetracycline (CMT-9), 4-de(dimethylamino)minocycline (CMT-10), 5-oxytetracycline, 7-chlortetracycline, 6-deoxy-5-oxytetracycline, 6-deoxytetracycline, 6-deoxy-6-demethyltetracycline, 7-bromotetracycline, 6-demethyl-7-chlortetracycline, 6-demethyltetracycline, 6-methylenetetracycline, 11a-chloro-6-methylenetetracycline, 6-methylene-5-oxytetracycline and 11a-chloro-6-methylene-5-oxytetracycline.

7. (Previously Presented) The method of claim 3, wherein the tetracycline compound is selected from the group consisting of 4-dedimethylaminotetracycline, 4-dedimethylamino-5-oxytetracycline, 4-dedimethylamino-7-chlortetracycline, 4-hydroxy-4-dedimethylaminotetracycline, 5a,6-anhydro-4-hydroxy-4-dedimethylaminotetracycline, 6α-deoxy-5-hydroxy-4-dedimethylaminotetracycline, 6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 4-dedimethylamino-12a-deoxytetracycline, 4-dedimethylamino-11-hydroxy-12a-deoxytetracycline, 12a-deoxy-4-deoxy-4-dedimethylaminotetracycline, 6α-deoxy-5-hydroxy-4-dedimethylaminodoxycycline, 12a,4a-anhydro-4-dedimethylaminotetracycline, 7-dimethylamino-6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 6a-benzyl-thiomethylenetetracycline, 2-nitrilo analogs of tetracycline (tetracyclinonitrile), mono-N-alkylated amide of tetracycline, 6-fluoro-6-demethyltetracycline, 11a-chlortetracycline, tetracycline pyrazole, 12a-deoxytetracycline, 4-de(dimethylamino)tetracycline (CMT-1), tetracyclinonitrile (CMT-2) 6-demethyl-6-deoxy-4-de(dimethylamino)tetracycline (CMT-3), 7-chloro-4-de(dimethylamino)tetracycline (CMT-4), tetracycline pyrazole (CMT-5), 4-hydroxy-4-de(dimethylamino)tetracycline (CMT-6), 4-de(dimethylamino)-12á-deoxytetracycline (CMT-7), 6-deoxy-5á-hydroxy-4-de(dimethylamino)tetracycline (CMT-8), 4-de(dimethylamino)-12á-deoxyanhydrotetracycline (CMT-9), 4-de(dimethylamino)minocycline (CMT-10), 5-oxytetracycline, 7-chlortetracycline, 6-deoxy-5-oxytetracycline, 6-deoxytetracycline, 6-deoxy-6-demethyltetracycline, 7-bromotetracycline, 6-demethyl-7-chlortetracycline, 6-demethyltetracycline, 6-methylenetetracycline,

11a-chloro-6-methylenetetracycline, 6-methylene-5-oxytetracycline and 11a-chloro-6-methylene-5-oxytetracycline.

8. (New) A treatment method, comprising:

administering a tetracycline compound in therapeutic amounts to treat the acute inflammatory response associated with a disease, condition or disorder selected from the group consisting of multiple sclerosis, rheumatoid arthritis, acute cardiovascular events, cachexia, inflammatory bowel disease, polytrauma and Crohn's disease.

9. (New) The method of claim 8, wherein the tetracycline compound is selected from the group consisting of chlortetracycline, demeclocycline, doxycycline, methacycline, minocycline, oxytetracycline and tetracycline.

10. (New) A treatment method, comprising:

administering a tetracycline-like compound in therapeutic amounts to treat the acute inflammatory response associated with a disease, condition or disorder selected from the group consisting of multiple sclerosis, rheumatoid arthritis, acute cardiovascular events, cachexia, inflammatory bowel disease, polytrauma and Crohn's disease.

11. (New) The method of Claim 10, wherein the tetracycline-like compound is characterized by at least one of the following: (a) the ability to induce expression of tumor necrosis factor and/or interleukin-1 receptors in treated individuals; and (b) the ability to alter folic acid metabolism in bacteria.

12. (New) The method of Claim 11, wherein the tetracycline-like compound is selected from the group consisting of thalidomide, aureomycin and sulfa drugs.

13. (New) A process for producing a composition for the treatment of a disease, condition or disorder, comprising:

contacting blood or a fraction thereof with a therapeutic substance selected from the group consisting of tetracyclines or tetracycline-like compounds wherein the level of cytokine receptors is increased; and

isolating the blood or fraction thereof having the increased cytokine receptors.

14. (New) The process of Claim 13, wherein the contacting is *en vivo*.

15. (New) The process of Claim 13, wherein the contacting is *en vitro*.

16. (New) The process of Claim 13, wherein the cytokine receptors are increased at least three-fold relative to non-contacted blood or a fraction thereof.

17. (New) The process of Claim 13, wherein the cytokine receptors are selected from the group consisting of interleukin-1 receptors and tumor necrosis factor receptors.

18. (New) The process of Claim 13, further comprising processing the isolated blood or fraction thereof by a process selected from the group consisting of: centrifugation, filtration, fractional precipitation, organic solvent precipitation, selective absorption, isoelectric precipitation, and chromatography.

19. (New) The process of Claim 18, wherein the blood or fraction thereof includes a gamma-globulin fraction, a anti-hemophilia factor fraction, a albumin fraction, serum and plasma.

20. (New) The process of Claim 13, wherein the disease, condition or disorder includes viral hemorrhagic diseases, sepsis, cachexia, rheumatoid arthritis, acute cardiovascular events, chronic myelogenous leukemia, transplanted bone marrow-induced graft-versus-host disease, septic shock, immune complex-induced colitis, cerebrospinal fluid inflammation, autoimmune disorders, multiple sclerosis, systemic inflammatory response syndrome, adult respiratory distress syndrome, acute liver failure, inflammatory bowel disease, or Crohn's disease.